Listing of the Claims:

Claim 1 (original): A method of automatic information filtering for identifying inappropriate information among various information provided through Internet and blocking presentation of identified inappropriate information, comprising the steps of:

entering an HTML (HyperText Markup Language) information provided through the Internet;

judging whether a URL (Uniform Resource Locator) of said HTML information entered from the Internet is a top page URL or not, the top page URL being a URL ending with a prescribed character string defining according to a URL hierarchical structure by which each URL is constructed;

extracting words appearing in information indicated by the top page URL and carrying out an automatic filtering to judge whether said information indicated by the top page URL is inappropriate or not according to the words extracted from said information indicated by the top page URL, when said URL of said HTML information is the top page URL;

registering an upper level URL derived from the top page URL into an inappropriate upper level URL list and blocking presentation of said information indicated by the top page URL, when said information indicated by the top page URL is judged as inappropriate by the automatic filtering, the upper level URL being derived from the top page URL by keeping a character string constituting the top page URL only up to a rightmost slash;

comparing said URL of said HTML information with each URL registered in the inappropriate upper level URL list and judging whether there is any matching URL in the

inappropriate upper level URL list when said URL of said HTML information is not the top page URL, and blocking presentation of information indicated by said URL of said HTML information when there is a matching URL in the inappropriate upper level URL list, the matching URL being one upper level URL whose character string is contained in said URL of said HTML information;

extracting words appearing in said information indicated by said URL of said HTML information, and carrying out the automatic filtering to judge whether said information indicated by said URL of said HTML information is inappropriate or not according to the words extracted from said information indicated by said URL of said HTML information, when there is no matching URL in the inappropriate upper level URL list; and

blocking presentation of said information indicated by said URL of said HTML information when said information indicated by said URL of said HTML information is judged as inappropriate by the automatic filtering.

Claim 2 (original): The method of claim 1, further comprising the steps of:

registering in advance URLs that provide inappropriate information in an inappropriate URL list; and

carrying out a third part rating based filtering for comparing said URL of said HTML information with each URL registered in the inappropriate URL list and judging whether there is any matching URL in the inappropriate URL list, and blocking presentation of said information indicated by said URL of said HTML information when there is a matching URL in the inappropriate URL list.

Claim 3 (original): An automatic information filtering apparatus for identifying inappropriate information among various information provided through Internet and blocking presentation of identified inappropriate information, comprising:

an input unit for entering an HTML (HyperText Markup Language) information provided through the Internet;

a top page URL judging unit for judging whether a URL (Uniform Resource Locator) of said HTML information entered from the Internet is a top page URL or not, the top page URL being a URL ending with a prescribed character string defined according to a URL hierarchical structure by which each URL is constructed;

a first automatic filtering unit for extracting words appearing in information indicated by the top page URL and carrying out an automatic filtering to judge whether said information indicated by the top page URL is inappropriate or not according to the words extracted from said information indicated by the top page URL, when said URL of said HTML information is the top page URL;

an inappropriate upper level URL list registration unit for registering an upper level URL derived from the top page URL into an inappropriate upper level URL list and blocking presentation of said information indicated by the top page URL is judged as inappropriate by the automatic filtering, the upper level URL being derived from the top page URL by keeping a character string constituting the top page URL only up to a rightmost slash;

an inappropriate URL judging unit for comparing said URL of said HTML information with each URL registered in the inappropriate upper level URL list and judging whether there is

any matching URL in the inappropriate upper level URL list when said URL of said HTML information is not the top page URL, and blocking presentation of information indicated by said URL of said HTML information when there is a matching URL in the inappropriate upper level URL list, the matching URL being one upper level URL whose character string is contained in said URL of said HTML information;

a second automatic filtering unit for extracting words appearing in said information indicated by said URL of said HTML information, and carrying out the automatic filtering to judge whether said information indicated by said URL of said HTML information is inappropriate or not according to the words extracted from said information indicated by said URL of said HTML information, when there is no matching URL in the inappropriate upper level URL list; and

an information presentation blocking unit for blocking presentation of said information indicated by said URL of said HTML information is judged as inappropriate by the automatic filtering.

Claim 4 (original): The apparatus of claim 3, further comprising:

an inappropriate URL list registration unit for registering in advance URLs that provide inappropriate information in an inappropriate URL list; and

a third party rating based filtering unit for carrying out a third part rating based filtering for comparing said URL of said HTML information with each URL registered in the inappropriate URL list and judging whether there is any matching URL in the inappropriate URL

list, and blocking presentation of said information indicated by said URL of said HTML information when there is a matching URL in the inappropriate URL list.

Claim 5 (original): A computer usable medium having computer readable program codes embodied therein for causing a computer to function as an automatic information filtering apparatus for identifying inappropriate information among various information provided through Internet and blocking presentation of identified inappropriate information, the computer readable program codes include:

a first computer readable program code for causing said computer to enter an HTML (HyperText Markup Language) information provided through the Internet;

a second computer readable program code for causing said comptuer to judge whether a URL (Uniform Resource Locator) of said HTML information entered from the Internet is a top page URL or not, the top page URL being a URL ending with a prescribed character string defined according to the URL hierarchical structure by which each URL is constructed;

a third computer readable program code for causing said computer to extract words appearing in information indicated by the top page URL and carry out an automatic filtering to judge whether said information indicated by the top page URL is inappropriate or not according to the words extracted from said information indicated by the top page URL, when said URL of said HTML information is the top page URL;

a fourth computer readable program code for causing said computer to register an upper level URL derived from the top page URL into an inappropriate upper level URL list and block presentation of said information indicated by the top page URL, when said information indicated

by the top page URL is judged as inappropriate by the automatic filtering, the upper level URL being derived from the top page URL by keeping a character string constituting the top page URL only up to a rightmost slash;

a fifth computer readable program code for causing said computer to compare said URL of said HTML information with each URL registered in the inappropriate upper level URL list and judge whether there is any matching URL in the inappropriate upper level URL list when said URL of said HTML information is not the top page URL, and block presentation of information indicated by said URL of said HTML information when there is a matching URL in the inappropriate upper level URL list, the matching URL being one upper level URL whose character string is contained in said URL of said HTML information;

a sixth computer readable program code for causing said computer to extract words appearing in said information indicated by said URL of said HTML information, and carry out the automatic filtering to judge whether said information indicated by said URL of said HTML information is inappropriate or not according to the words extracted from said information indicated by said URL of said HTML information, when there is no matching URL in the inappropriate upper level URL list; and

a seventh computer readable program code for causing said computer to block presentation of said information indicated by said URL of said HTML information when said information indicated by said URL of said HTML information is judged as inappropriate by the automatic filtering.

Claim 6 (original): The computer usable medium of claim 5, wherein the computer readable program codes further include:

an eighth computer readable program code for causing said computer to register in advance URLs that provide inappropriate information in an inappropriate URL list; and

a ninth computer readable program code for causing said computer to carry out a third part rating based filtering for comparing said URL of said HTML information with each URL registered in the inappropriate URL list and judging whether there is any matching URL in the inappropriate URL list, and blocking presentation of said information indicated by said URL of said HTML information when there is a matching URL in the appropriate URL list.

Claim 7 (original): A method of automatic filtering for identifying inappropriate information filtering for identifying inappropriate information among various information provided through Internet and blocking presentation of identified inappropriate information, comprising the steps of:

obtaining word weights of words to be used in judging whether presentation of each information should be blocked or not according to words contained in each information, by an automatic learning using learning data containing inappropriate information whose presentation should be blocked and appropriate information whose presentation should not be blocked;

storing and managing the word weights in correspondence to respective words in a form of a weighted word list; extracting words contained in information entered from the Internet; and

reading out the word weight for each word extracted from said information, from the weighted word list, calculating a total sum of the word weights of the words extracted from said

information, and judging whether or not presentation of said information should be blocked or not according to the total sum.

Claim 8 (original): The method of claim 7, wherein the automatic learning is based on a linear discrimination function that can discriminate the inappropriate information and the appropriate information on a vector space.

Claim 9 (original): The method of claim 7, further comprising the steps of:

registering in advance URLs that provide inappropriate information in an inappropriate URL list; and

carrying out a third party rating based filtering for comparing said URL of said HTML information with each URL registered in the inappropriate URL list and judging whether there is any matching URL in the inappropriate URL list, the blocking presentation of said information indicated by said URL of said HTML information when there is a matching URL in the inappropriate URL list.

Claim 10 (original): An automatic information filtering apparatus for identifying inappropriate information among various information provided through Internet and blocking presentation of identified inappropriate information, comprising:

a word weight learning unit for obtaining word weights of words to be used in judging whether presentation of each information should be blocked or not according to words contained in each information, by an automatic learning using learning data containing inappropriate information whose presentation should be blocked and appropriate information whose presentation should not be blocked;

a weighted word list storing unit for storing and managing the word weights in correspondence to respective words in form of a weighted word list;

a word extraction unit for extracting words contained in information entered from the Internet; and

a judging unit for reading out the word weight for each word extracted from said information, from the weighted word list, calculating a total sum of the word weights of the words extracted from said information, and judging whether or not presentation of said information should be blocked or not according to the total sum.

Claim 11 (original): The apparatus of claim 19, wherein the automatic learning is based on a linear discrimination function that can discriminate the inappropriate information and the appropriate information on a vector space.

Claim 12 (original): The apparatus of claim 10, further comprising:

an inappropriate URL list registration unit for registering in advance URLs that provide inappropriate information in an inappropriate URL list; and

a third party rating based filtering unit for carrying out a third party rating based filtering for comparing said URL of said HTML information with each URL registered in the inappropriate URL list and judging whether there is any matching URL in the inappropriate URL list, and blocking presentation of said information indicated by said URL of said HTML information when there is a matching URL in the inappropriate URL list.

Claim 13 (original): A computer usable medium having computer readable program codes embodied therein for causing a computer to function as an automatic information filtering

apparatus for identifying inappropriate information among various information provided through Internet and blocking presentation of identified inappropriate information, the computer readable program codes include:

a first computer readable program code for causing said computer to obtain word weights of words to be used in judging whether presentation of each information should be judging whether presentation of each information should be blocked or not according to words contained in each information, by an automatic learning using learning data containing inappropriate information whose presentation should be blocked and appropriate information whose presentation should not be blocked;

a second computer readable program code for causing said computer to store and manage the word weights in correspondence to respective words in a form of a weighted word list;

a third computer readable program code for causing said computer to extract words contained in information entered from the Internet; and

a fourth computer readable program code for causing said computer to read out the word weight for each word extracted from said information, from the weighted word list, calculate a total sum of the word weights of the words extracted from said information, and judge whether or not presentation of said information should be blocked or not according to the total sum.

Claim 14 (original): The computer usable medium of claim 13, wherein the automatic learning is based on a linear discrimination function that can discriminate the inappropriate information and the appropriate information on a vector space.

Claim 15 (original): The computer usable medium of claim 13, wherein the computer readable program codes further include:

a fifth computer readable program code for causing said computer to register in advance URLs that provide inappropriate information in an inappropriate URL list; and

a sixth computer readable program code for causing said computer to carry out a third part rating based filtering for comparing said URL of said HTML information with each URL registered in the inappropriate URL list and judging whether there is any matching URL in the inappropriate URL list, the blocking presentation of said information indicated by said URL of said HTML information when there is a matching URL in the inappropriate URL list.